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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,397	11/24/2003	Christopher John Capece	3-12	4116

7590 08/31/2006

Docket Administrator (Room 3J-219)  
Lucent Technologies Inc.  
101 Crawfords Corner Road  
Holmdel, NJ 07733-3030

EXAMINER

PHU, SANH D

ART UNIT PAPER NUMBER

2618

DATE MAILED: 08/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/720,397	Applicant(s) CAPECE ET AL.	
	Examiner Sanh D. Phu	Art Unit 2618	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Information Disclosure Statement*

1. The IDS filed 11/24/2003 has been considered and recorded in the file.

### *Claim Rejections – 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1–10,12,14–20 are rejected under 35 U.S.C. 102(e) as being anticipated by Li (US 2005/0002327).

Regarding to claim 1, Li discloses in Fig. 3A with a wireless transceiver

(321,322,323,325,350) comprising:

at least one base band unit (325);

at least one radio frequency unit (321); and

a wireless link for wirelessly coupling the baseband unit with the radio frequency unit (see Fig. 3A).

Regarding to claim 2, Li discloses the wireless transceiver wherein at least one of the base band unit (325) and the radio frequency unit comprises a transmitter-receiver (321) for supporting the wireless link (see Fig. 3B).

Regarding to claim 3, Li discloses the wireless transceiver wherein the transmitter-receiver comprises at least one of a line-of-sight transceiver and a broadcast transceiver (see section [0048]).

Regarding to claim 4, Li discloses the wireless transceiver wherein the transmitter-receiver comprises at least one of:

a demultiplexer for demultiplexing a received signal and a multiplexer for multiplexing a signal to be transmitted;

an authenticator for authenticating the received signal and an deauthenticator for deauthenticating the signal to be transmitted (see section [0201]); and

a decryptor for decrypting the received signal and an encryptor for encrypting the signal to be transmitted.

Regarding to claim 5, Li discloses the multi antenna as claimed (see Fig. 3A).

Regarding to claim 6, Li discloses the wireless transceiver wherein the multi-headed air interface antenna comprises at least one antenna head per sector (each antenna per RF sector (321), see Fig. 3A)).

Regarding to claim 7, Li discloses the wireless transceiver wherein the multi-headed air interface antenna is operative to support a data rate of at least 100 Mbps (Fig. 7).

Regarding to claim 8, Li discloses the wireless transceiver wherein the at least one radio frequency unit comprises an RF antenna for supporting the wireless link (see Fig. 3A and 3B).

Regarding to claim 9, Li discloses the wireless transceiver wherein the RF antenna is operative to support a data rate of at least 100 Mbps (Fig. 7).

Regarding to claim 10, Li discloses the wireless transceiver wherein the at least one base band unit comprises:

at least two base band unit printed circuit (two 322 in Fig. 3A); and  
a base band unit wireless link for wirelessly coupling the at least two base band unit printed circuit to each other (Fig. 3A).

Regarding to claim 12, Li discloses the wireless transceiver wherein the at least one radio frequency unit comprises:

at least two radio frequency unit (two 321 in Fig. 3A) printed circuit; and  
a radio frequency wireless link for wirelessly coupling the at least two radio frequency unit printed circuits to each other (see Fig. 3A).

Regarding to claim 14, Li discloses a base transceiver station comprising:  
at least one base band unit (322);  
at least one radio frequency unit having at least one radio (321); and  
a wireless link for wirelessly coupling the baseband unit with the at least one radio (see Fig. 3A).

Regarding to claim 15, Li discloses the base transceiver station wherein the wireless link wirelessly couples at least one of an IF section (baseband), an I&Q section(Tx I Q)(Fig. 3B), and an RF section of the radio with the at least one base band unit (see Fig. 3A and 3B).

Regarding to claim 16, claim 16 is rejected with similar reasons as set forth in claim 2.

Regarding to claim 17, claim 17 is rejected with similar reasons as set forth in claim 3.

Regarding to claim 18, claim 18 is rejected with similar reasons as set forth in claim 4.

Regarding to claim 19, claim 19 is rejected with similar reasons as set forth in claims 5, 6 and 7.

Regarding to claim 20, Li discloses the base transceiver station wherein the at least one radio comprises an RF antenna for supporting the wireless link, the RF antenna operative to support a data rate of at least 100 Mbps (see Fig. 3A and 7).

***Claim Rejections – 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2618

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li.

Regarding to claims 11 and 13, Li does disclose the wireless transceiver wherein the base band unit wireless link comprises a range of at least 100 meters(see Fig. 6 C, section [0016]).

Li fails to disclose a range of at least 500 meters. The examiner, however, takes Official Notice that increasing range is known in the art for purpose of improving the range. Therefore, it would have been obvious for one skilled in the art at the time of the invention to modify Li as claimed, in order to improve a longer range so that the transceiver is able to reach another units.

### *Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanh D. Phu whose telephone number



is (571)272-7857. The examiner can normally be reached on M-Th from 7:00-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

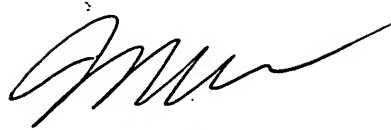
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Sanh D. Phu  
Examiner  
Division 2618

SP

A handwritten signature in black ink, appearing to read 'Matthew D. Anderson', with a long, sweeping horizontal stroke at the end.

**Matthew D. Anderson**  
Supervisory Patent Examiner